AMENDMENTS IN THE CLAIMS:

1-29. (Canceled)

30. (Original) A recording medium for recording information, wherein:

at least one of a recording mark and a space is formed on the recording medium by, while rotating the recording medium with a linear velocity selected from the plurality of linear velocities, irradiating the recording medium with a pulse sequence selected from the plurality of pulse sequences, the pulse sequence corresponding to the linear velocity;

the plurality of pulse sequences correspond to the plurality of linear velocities;

at least one first recording parameter corresponding to at least one linear velocity of the plurality of linear velocities is measured;

a fourth recording parameter corresponding to the plurality of linear velocities is determined based on at least one third recording parameter recorded on the recording medium;

a second parameter is determined based on the at least one first recording parameter measured and the fourth recording parameter;

the plurality of pulse sequences corresponding to the plurality of linear velocities are generated based on the determined second recording parameter;

the recording medium has a region, in which the third recording parameter is recorded;

the first recording parameter, the second recording parameter, the third recording parameter, and the fourth recording parameter have a relationship represented by:

$g(v)=f(v)+PMv1-f(v1)+Adj(v)$

where:

v represents the plurality of linear velocities;

v1 represents a linear velocity corresponding to one of the at least one third recording parameter;

g(v) represents the second recording parameter corresponding to the plurality of linear velocities;

f(v) represents the fourth recording parameter corresponding to the plurality of linear velocities;

PMv1 represents the first recording parameter; and

Adj(v) represents an adjustment value corresponding to the plurality of linear velocities.

31. (Canceled)

32. (Original) A recording medium according to claim 30, wherein the recording medium has a region, in which an identification code for selecting the at least one third recording parameter is recorded.

33-39. (Canceled)

40. (New) A recording method comprising the steps of:

(a) generating a plurality of pulse sequences corresponding to a plurality of linear velocities in the range va to vb;

va being the lowest linear velocity;

vb being the highest linear velocity,

wherein each one of said plurality of pulse sequences having a starting pulse and a terminating pulse, the starting pulse being provided at a beginning thereof and the terminating pulse being provided at the end thereof;

wherein the step (a) comprises the steps of:

(a-1) providing, for each of the recording parameters, corresponding recording parameter values PCv1 and PCv2 for linear velocities v1 and v2 respectively, wherein v1 and v2 are linear velocities satisfying the relationship $va \leq v1 < v2 \leq vb$;

(a-2) setting, for each of the recording parameters, the corresponding recording parameter values PCv1 and PCv2;

(a-3) performing learning using said linear velocity v1 and the corresponding recording parameter value PCv1 and optimizing, for said linear velocity v1, to obtain a corresponding optimum recording parameter value PMv1 for each of the recording parameters;

(a-4) performing learning using said linear velocity v2 and the corresponding recording parameter value PCv2 and optimizing, for said linear velocity v2, to obtain a corresponding optimum recording parameter value PMv2 for each of the recording parameters;

(a-5) obtaining recording parameters corresponding to an arbitrary linear velocity v by using a corresponding recording parameter approximation function h(v) obtained based on PMv1 and PMv2;

(b) while rotating a recording medium with a linear velocity v selected from the plurality of linear velocities, forming at least one of a recording mark and a space by irradiating the recording medium with a pulse sequence, wherein the pulse sequence is determined by a set of recording parameters calculated from the corresponding recording parameter approximation function h(v).

41. (New) A recording method according to claim 40, wherein:

the linear velocity v1 is the linear velocity va and the linear velocity v2 is the linear velocity vb.

42. (New) A recording method according to claim 40, wherein step (a-1) further comprises:

providing, for each of the recording parameters, corresponding recording parameter value PCv3 for linear velocity v3, the linear velocity va, the linear velocity vb, the linear velocity v1, the linear velocity v2, and the linear velocity v3 have a relationship $va \leq v1 < v2 < v3 \leq vb$.

43. (New) A recording method according to claim 40, wherein step (a-1) further comprises:

providing, for each of the recording parameters corresponding recording parameter value PCv3 for linear velocity v3,

wherein the linear velocity v1 is the linear velocity va, the linear velocity v2 is the linear velocity vb, and the linear velocity v3 is the linear velocity vc; and

the linear velocity va, the linear velocity vb, and the linear velocity vc have a relationship vc=(va+vb)/2.

44. (New) A recording method according to claim 40, wherein h(v) is a linear function or a quadratic function.

45. (New) A recording method according to claim 40, wherein:

the optimum recording parameter PMv1 corresponds to the linear velocity v1 and the optimum recording parameter PMv2 corresponds to the linear velocity v2; and

the following relationship is satisfied:

$va \leq v1 < v2 \leq vb$,

$h(v) = \beta \cdot (v-va)+PMv1$, and

$\beta = (PMv2-PMv1)/(v2-v1)$.

46. (New) A recording method according to claim 40, wherein the recording parameter values PCv1 and PCv2 provided in step (a-1) are selected based on identification codes recorded on the recording medium.

47. (New) A recording apparatus, comprising:

means for generating a plurality of pulse sequences corresponding to a plurality of linear velocities in the range va to vb;

va being the lowest linear velocity;

vb being the highest linear velocity,

wherein each one of said plurality of pulse sequences having a starting pulse and a terminating pulse, the starting pulse being provided at a beginning thereof and the terminating pulse being provided at the end thereof;

wherein the means for generating the plurality of pulse sequences are operable to:

provide, for each of the recording parameters, corresponding recording parameter values PCv1 and PCv2 for linear velocities v1 and v2 respectively, wherein v1 and v2 are linear velocities satisfying the relationship $va \leq v1 < v2 \leq vb$;

set, for each of the recording parameters, the corresponding recording parameter values PCv1 and PCv2;

perform learning using said linear velocity v1 and the corresponding recording parameter value PCv1 and optimizing, for said linear velocity v1, to obtain a corresponding optimum recording parameter value PMv1 for each of the recording parameters;

perform learning using said linear velocity v2 and the corresponding recording parameter value PCv2 and optimizing, for said linear velocity v2, to obtain a corresponding optimum recording parameter value PMv2 for each of the recording parameters;

obtain recording parameters corresponding to an arbitrary linear velocity v by using a corresponding recording parameter approximation function h(v) obtained based on PMv1 and PMv2;

means for, while rotating a recording medium with a linear velocity v selected from the plurality of linear velocities, forming at least one of a recording mark and a space by irradiating the recording medium with a pulse sequence,

wherein the pulse sequence is determined by a set of recording parameters calculated from the corresponding recording parameter approximation function h(v).

48. (New) A recording apparatus according to claim 47, wherein:

the linear velocity v1 is the linear velocity va and the linear velocity v2 is the linear velocity vb.

49. (New) A recording apparatus according to claim 47, wherein:

the recording parameter values PCv1 and PCv2, corresponding to linear

velocities v1 and v2 respectively, are recording parameters values previously recorded on the recording medium; and

the linear velocity va, the linear velocity vb, the linear velocity v1, and the linear velocity v2 have a relationship $va \leq v1 < v2 \leq vb$.

50. (New) A recording apparatus according to claim 47, wherein:

the recording parameter values PCv1 and PCv2, corresponding to linear velocities v1 and v2 respectively, are recording parameters values previously recorded on the recording medium; and

the linear velocity v1 is the linear velocity va and the linear velocity v2 is the linear velocity vb.

51. (New) A recording apparatus according to claim 47, wherein:

the recording parameter values PCv1 and PCv2, corresponding to linear velocities v1 and v2 respectively, are recording parameters values previously recorded on the recording medium; and

h(v) is a linear function or a quadratic function.

52. (New) A recording apparatus according to claim 47, wherein:

the recording parameter values PCv1 and PCv2, corresponding to linear velocities v1 and v2 respectively, are recording parameters values previously recorded on the recording medium;

the optimum recording parameter PMv1 corresponds to the linear velocity v1 and the optimum recording parameter PMv2 corresponds to the linear velocity v2; and

the following relationship is satisfied:

$va \leq v1 < v2 \leq vb$,

$h(v) = \beta \cdot (v-va)+PMv1$, and

$\beta = (PMv2-PMv1)/(v2-v1)$.